

24 January 2005

Mr. Lance McMahan
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, CA 95826

Mr. Laurent Meillier
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Final Site Assessment/Corrective Action Plan
Hayward Air National Guard Station
Hayward, California

Dear Messrs. McMahan and Meillier:

On behalf of the Air National Guard, ERM-West, Inc., (ERM) has prepared this final letter work plan to describe proposed site assessment/corrective action plan (SA/CAP) activities at two former underground storage tank (UST) sites at the Hayward Air National Guard (ANG) Station in Hayward, California ([Figure 1](#)). This work plan was prepared to describe the collection of soil and groundwater samples through direct-push borings to assess the presence of petroleum hydrocarbons in soil and groundwater.

This work plan includes the following sections:

- [Background](#);
- [Geology/Hydrogeology](#);
- [Summary of Remedial Investigations](#);
- [Objectives](#);
- [Sampling and Analysis Plan](#); and
- [Reporting and Schedule](#).

1.0 BACKGROUND

The Station is at 1525 West Winton Avenue in Hayward, California, approximately 1 mile west of Interstate 880 ([Figure 1](#)). The Station is bounded by the Hayward Executive Airport (HEA) to the north, West Winton Avenue to the south, a City of Hayward Fire Department station to the east, and various commercial/industrial properties to the west.

The U.S. Army constructed the Hayward Army Airfield for use as a fighter base and auxiliary field for fighters and bombers during World War II. The City of Hayward gained ownership of the site and standing buildings through quitclaim deed from the War Assets Administration in 1947. In a lease agreement dated February 1949, the City of Hayward leased 27 acres of the site to the California ANG. The remaining land became the HEA. The site consists of numerous buildings that house offices, vehicles, and equipment ([Figure 2](#)).

[Table 1](#) lists the status of USTs and oil/water separators at the Station. Records indicate that all of these facilities, with the exception of two active oil/water separators, have been removed.

This investigation is being performed to determine if the former USTs at the Boiler House and the Base Exchange released petroleum hydrocarbons to the subsurface.

2.0 GEOLOGY/HYDROGEOLOGY

Investigations of subsurface conditions at the property have described the lithology as consisting of low permeability clay to approximately 5 feet below ground surface (bgs), laterally continuous across the Station. Between 5 and 30 feet bgs, the deposits are composed of silt and clays with lenses of coarser material (sand) locally present. The thickness of the deposits beneath the Station has not been determined.

The water table is found across the Station at depths less than 10 feet bgs. The uppermost water-bearing zone is composed of silts and sandy silts, and extends to at least 30 feet bgs. The groundwater flow direction at the site has historically been to the west/southwest at a gradient of 0.003 feet

per foot. The potential presence of deeper aquifers beneath the Station has not been explored.

2.1 *Beneficial Uses of Surface and Groundwater*

The Regional Water Quality Control Board's (RWQCB) 1995 *San Francisco Bay Basin Water Quality Control Plan* (SFB Basin Plan) defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. As defined by the SFB Basin Plan, the Hayward ANG Station is located in the Sulfur Creek watershed in the Calaveras Reservoir Area, which is in turn part of the South Bay Basin. The beneficial uses identified within the Calaveras Reservoir Area include: cold freshwater habitat; municipal and domestic water supply; commercial and sport fishing; contact and noncontact water recreation; fish spawning; warm freshwater and wildlife habitat. The SFB Basin Plan identifies no additional beneficial uses specific to Sulfur Creek.

The existing and potential beneficial uses of the groundwater underlying the Hayward ANG Station include industrial process water supply, industrial service supply, municipal and domestic supply, and agricultural supply.

3.0 *SUMMARY OF REMEDIAL INVESTIGATIONS*

Three investigations have been conducted between July 1994 and May 2004. The sites addressed in this work plan have not been addressed in these previous investigations. Additional information for the site, including previous remedial investigation results, is summarized in the following reports:

- *Site Investigation, Installation Restoration Program Site No. 4 and Site No. 5* (Operational Technologies Corporation, 1996);
- *Preliminary Assessment/Site Investigation Report (PA/SI)* (ERM, 2002);
and
- *Site Investigation Addendum Report* (ERM, 2004).

In addition, a remedial investigation is currently planned to investigate the presence of compounds of concern (COCs) in other areas within the Station.

3.1 *Base Exchange*

Two USTs were formerly present on the western corner of the Station entrance, as shown in [Figure 2](#). These steel, 2,000-gallon gasoline tanks were installed in 1965 and used for vehicle fueling. According to personnel interviews conducted as part of the PA/SI, these tanks were removed in the late 1960s. However, ANG records indicate that these tanks were removed in August of 1985. No further documentation on the removal of these tanks has been located.

3.2 *Boiler House*

The Boiler House UST was formerly present adjacent to Building 2, as shown in [Figure 2](#). This tank consisted of a 10,000-gallon diesel tank used to provide fuel to the boiler house present within Building 2. According to personnel interviews, this tank was present to provide backup fuel to the boiler.

Records documenting the removal of this tank were obtained from the City of Hayward during the record review process for the PA/SI. The records indicate that this tank was removed from the site on 29 February 1996. Two soil samples were collected from the tank excavation at 11 feet bgs and analyzed for total petroleum hydrocarbons as diesel (TPH-D); and benzene, toluene, ethyl benzene, and xylenes (BTEX). As detailed in the [table](#) below, all of the analyzed compounds were non-detect. The closure report and soil analytical results are provided in [Appendix A](#). Correspondence from the City of Hayward Fire Department, which provided oversight of the tank removal, indicates that the soils excavated during the tank removal were used to backfill the excavation. Based on the non-detect analytical results, the City of Hayward, in a letter dated 13 August 1996, indicated that no further action was required for the Boiler House UST. Correspondence from the City of Hayward is included as [Appendix B](#).

Sample ID	Reported Concentrations (mg/kg)				
	Benzene	Toluene	Ethyl Benzene	Xylenes	TPH-D
114E	< 0.005	< 0.005	< 0.005	< 0.005	< 1
114W	< 0.005	< 0.005	< 0.005	< 0.005	< 1
ESL	0.04	2.9	3.3	1.5	100

mg/kg = milligrams per kilogram

< = Less than; compound not detected at the Reporting Limit

ESL = Environmental Screening Level, deep soils, groundwater is a current or potential source of drinking water

4.0 OBJECTIVES

The field investigation will be conducted to characterize the potential presence of petroleum hydrocarbons in soil and/or groundwater at the two former tank locations. The investigation includes collecting the following soil and groundwater samples through direct-push borings:

- Advance four direct-push soil borings at the location of each of the three former tank locations. The borings will be continuously cored. Samples will be submitted for analysis at locations where field observations indicate potential impacts to soil may be present. In the absence of evidence of impacted soil within a boring, two soil samples will be collected, one sample at approximately 2 to 3 feet bgs, and one just above the water table at 7 to 8 feet bgs for a total of 24 soil samples.
- Two of the borings at each of the tank sites will be used to collect screening-level groundwater samples for a total of six groundwater samples.

The results of the investigation will be used to determine the potential threat to public health or the environment, and the necessity and scope of additional investigation and/or potential remedial actions at the former tank locations.

5.0 SAMPLING AND ANALYSIS PLAN

In order to achieve the additional site characterization objectives, the following scope of work will be performed. All work will be performed in accordance with ERM's site-specific *Health and Safety Plan* and *Quality Assurance Project Plan* (QAPP) included as appendices to the *Remedial Investigation Work Plan* (ERM, 2005).

5.1 Permitting and Utility Clearance

Prior to initiating drilling activities, all necessary permits will be obtained from the Alameda County Public Works Agency – Water Resources Section. The Alameda County Public Works Agency may provide field inspection of the grouting of borings. In addition, Underground Services Alert subscribing companies will be notified to perform utility clearances in the vicinity of the proposed borings prior to installation.

5.2 Soil Sample Collection

To evaluate the extent and concentrations of petroleum hydrocarbons in soil, a total of 12 direct-push borings (e.g., GeoProbe™ or similar) will be advanced at the former UST locations. Proposed boring locations are presented in [Figures 3 and 4](#). The GeoProbe™ rig will use a 2-inch-diameter core barrel sampler to collect a continuous core soil sample. Samples will be submitted for analysis at locations where field observations indicate potential impacts to soil may be present. In the absence of evidence of impacted soil within a boring, two soil samples will be collected, one sample at approximately 2 to 3 feet bgs, and one just above the water table at 7 to 8 feet bgs.

Soil samples will be collected for VOC analysis using EnCore® Samplers in accordance with *Test Methods for Evaluating Solid Waste, SW-846 Final Update III* (USEPA, June 1997), requiring the collection of sub-samples from the sample liner. Following the collection of the EnCore® samples, the sample liner(s) to be submitted for laboratory analysis will be sealed with Teflon™ tape and plastic caps, labeled, recorded on a Chain-of-Custody record, and placed in a cooler with ice.

5.3 *Groundwater Sample Collection*

Six borings, two at each former UST, are proposed for the collection of screening-level groundwater samples. Boring locations proposed for the collection of groundwater samples are shown in [Figures 3 and 4](#).

Groundwater samples will be collected from a 0.75-inch-diameter, slotted polyvinyl chloride (PVC) screen installed in the boring. Groundwater samples will be collected with a peristaltic pump discharging directly into pre-cleaned sampling containers provided by the analytical laboratory. Groundwater samples analyzed for VOCs will be collected in volatile organic analysis vials. To minimize volatilization, groundwater will be carefully transferred to the volatile organic analysis vial and the vial filled completely and capped with a Teflon™ septum lid such that zero headspace is achieved and no air bubbles are visible when the vial is inverted. For dissolved lead samples, a 0.45-micron filter will be placed in line with the pump discharge tubing to remove particulates prior to collecting the samples in preserved sample containers. The groundwater samples will then be labeled and placed in a cooler with ice.

5.4 *Sample Shipment*

After collection, samples will be immediately stored in a cooler with ice or frozen ice pack to maintain a temperature of 4 degrees Celsius (°C). Samples will be packaged and stored in a manner that will prevent damage. All sample modules, liners, and bottles will be labeled, wrapped in protective packing material, and placed right-side-up in a cooler for delivery to the laboratory. The samples will be delivered or shipped to the laboratory on the date of sample collection, or as soon afterwards as possible.

5.5 *Laboratory Analyses*

Soil and groundwater samples will be transported to the laboratory in an insulated cooler chilled with ice under proper chain-of-custody procedures. The samples will be submitted to the laboratory for the following analyses:

- United States Environmental Protection Agency (USEPA) Method 8260B for constituents listed in [Appendix C](#), including the following:

- Volatile organic compounds (VOCs) including 1,2-dichloroethane and 1,2-dibromoethane (ethylene dibromide);
- Fuel oxygenates (methyl tert-butyl ether, tert-butyl alcohol, ethyl tert-butyl ether, diisopropyl ether, and tert-amyl methyl ether); and
- Total petroleum hydrocarbons as gasoline (TPH-G);
- TPH-D using USEPA Method 8015 Modified including silica gel cleanup for the diesel fraction;
- Tetraethyl lead (TEL) using California Leaking Underground Fuel Tank (LUFT) method; and
- Dissolved lead (for groundwater samples) and total lead (for soil samples) using USEPA Method 6010B.

The sample holding times and sample containers/preservation for the above laboratory analytical methods are specified on [Table 2](#). Sample analysis will be performed by Sequoia Analytical, a California-certified laboratory.

5.6 *Equipment Decontamination Procedures*

All sampling equipment will be decontaminated prior to use and between sample collection. Standard decontamination procedures call for scrubbing sampling equipment with a laboratory-grade detergent (such as Liqui-Nox or Alconox), followed by a rinse with potable water, and a rinse by deionized water.

All equipment will be decontaminated in the designated decontamination area. All decontaminated equipment and unused construction materials will be removed from the Station. All decontamination fluids will be collected, analyzed for disposal characteristics, and disposed of in accordance with applicable State and Federal regulations.

5.7 *Quality Assurance/Quality Control*

An ERM chemist will perform a quality assurance/quality control review (QA/QC) of the analytical results to ensure technical accuracy of the

data. QA/QC samples will be collected and sent to the laboratory along with the actual samples for analysis. The types of field QA/QC samples and the frequency of collection are as follows:

- Field duplicate samples and equipment rinsate blanks will be collected at a frequency of 10 percent of the total number of primary samples.
- One tap water field blank and one American Society for Testing and Materials (ASTM) Type II reagent-grade water field blank will be collected for each sampling event.
- One trip blank for VOC analysis will be included with each cooler containing samples for VOC analysis. The trip blank will be prepared using ASTM Type II reagent-grade water (or equivalent).
- One matrix spike/matrix spike duplicate will be designated for every 20 primary samples (soil and groundwater).

Laboratory QA/QC samples and the frequency of analysis are also specified in the site-specific QAPP.

6.0 *REPORTING AND SCHEDULE*

The proposed field activities are scheduled to begin in February 2005 with the RWQCB approval of this work plan. A report summarizing the results of the investigation activities will be prepared within 60 working days of receipt of validated laboratory reports.

6.1 *Data Evaluation*

The SA/CAP will use the current version of applicable regulatory criteria to assess which compounds may require further evaluation. To screen soil analytical results, the criteria used will be USEPA Region IX Preliminary remediation goals (PRGs) for residential and industrial soil, as well as RWQCB Region II Environmental screening level (ESLs). To be conservative, the ESL for shallow soil where groundwater is a current or potential source of drinking water will be used. To screen groundwater analytical results, the California Primary Maximum contaminant level (MCLs) and ESLs will be used.

6.2 *GeoTracker Reporting*

As required by the State of California Assembly Bill 2886, groundwater monitoring and analytical results will be reported to the State Water Resources Control Board GeoTracker system. The electronic data will be in the required electronic data format (EDF) and will not include ERM data qualifiers.

If you have any questions regarding this report, please do not hesitate to contact either of the undersigned at (916) 924-9378.

Sincerely,

Demian Wincele
Project Manager

Mark Bradford
Principal

MLB/DEW/0021762.12

enclosures

cc: Kenneth Caligiuri, ANG
 Lt. Col. Doris Gruber, ANG
 Michelle Trotter, DTSC

Tables

Table 1

Summary of Underground Storage Tanks
SA/CAP Work Plan
Hayward Air National Guard Station
Hayward, California

Building Served	Volume (gal.)	Contents	Construction Materials	Year Installed	Status	Summary of Leaks	Remedial Actions
2 - Steam Facility	10,000	Diesel	Steel	1949	Removed 2/29/1996	None	None
Apron/Flightline	25,000 (3 tanks)	JP-4	Steel	1951	Removed 2/12/1992	Hydrocarbons reported in soil and groundwater	ERP Site 5
	750	Used oil ¹	Concrete	1955	Removed, date unknown ²	None	None
3 - Vehicle Maintenance	6,000	Gasoline	Steel	1951	Removed 1/26/1994	Hydrocarbons reported in soil and groundwater	ERP Site 4
	750	Used oil ¹	Concrete	1966	Removed, date unknown ²	None	None
	5,000	Gasoline	Fiberglass	1981	Removed 1/26/1994	Hydrocarbons reported in soil and groundwater	ERP Site 4
Base Exchange Site	2,000 (2 tanks)	Gasoline	Steel	1965	Removed 8/9/1985	None	None
9 - Vehicle Maintenance	750	Used oil ¹	Concrete	1966	Removed, date unknown ²	None	None

Notes and Abbreviations

1 = Oil water separator

2 = Air National Guard records indicate these facilities were removed on 3/22/1996. No further documentation has been located.

gal = gallons

ERP = Environmental Restoration Program

Table 2

*Sample Containers, Preservation, and Holding Times**SA/CAP Work Plan**Hayward Air National Guard Station**Hayward, California*

Parameter	Matrix	Analytical Method	Container	Preservation	Maximum Holding Time Extraction/ Analysis
VOCs ¹	Soil Water	USEPA 8260 USEPA 8260B	EnCore Sampler® 40 ml Glass	4°C 4°C & HCl	48 hours to analysis 14 days to analysis
TPH as Diesel	Soil	USEPA 8015M	Brass Sleeve	4°C	14 days/40 days from extraction to analysis
	Water	USEPA 8015M	1 liter Glass	4°C	14 days/40 days from extraction to analysis
Lead	Soil	USEPA 6010B CA LUFT	Brass Sleeve	4°C	6 months to analysis, Org. Pb 14 days to analysis
	Water	USEPA 6010B CA LUFT	500 ml HDPE	4°C & HNO ₃ 4°C	6 months to analysis, Org. Pb 14 days to analysis

Notes and Abbreviations:

1. VOC analysis will include fuel oxygenates and TPH as gasoline, as described in the Work Plan

°C = degrees Celsius

BTEX = Benzene, toluene, ethylbenzene, and xylenes

CA LUFT = California Leaking Underground Fuel Tank

HCl = Hydrochloric acid

HDPE = High density polyethylene

HNO₃ = Nitric acid

M = Modified

ml = Milliliter

Org. Pb = Organic lead

SA/CAP = Site Assessment/Corrective Action Plan

TPH = Total Petroleum Hydrocarbons

USEPA = United States Environmental Protection Agency

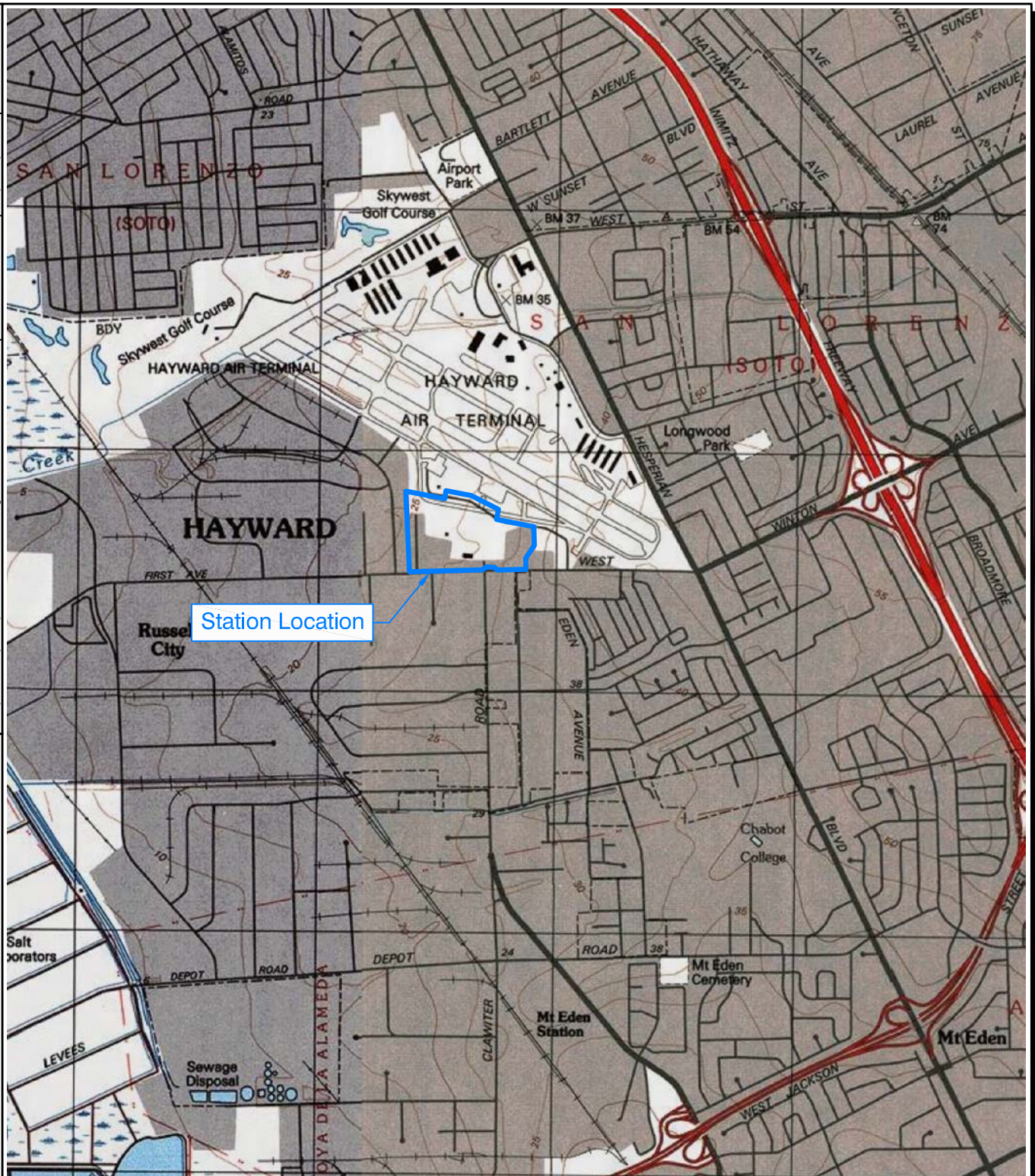
Figures

Project No.
7505.21

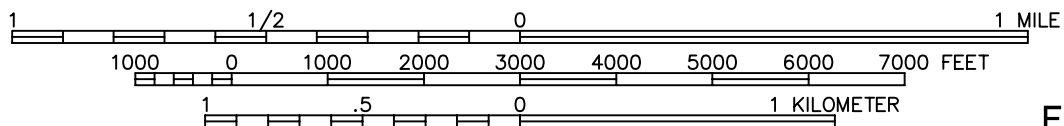
Date:
07/08/04

Drawn By:
R. Olson

CAD File:
G:\7505\21\75052109.dwg



SCALE 1: 24,000



References:
U.S.G.S. 7.5 Minute Series Quadrangles;
Hayward, California, Dated 1959, Photorevised 1980;
San Leandro, California, Dated 1959, Photorevised 1980

Figure 1
*Station Location Map
Hayward ANG
Hayward, California*

ERM 06/04

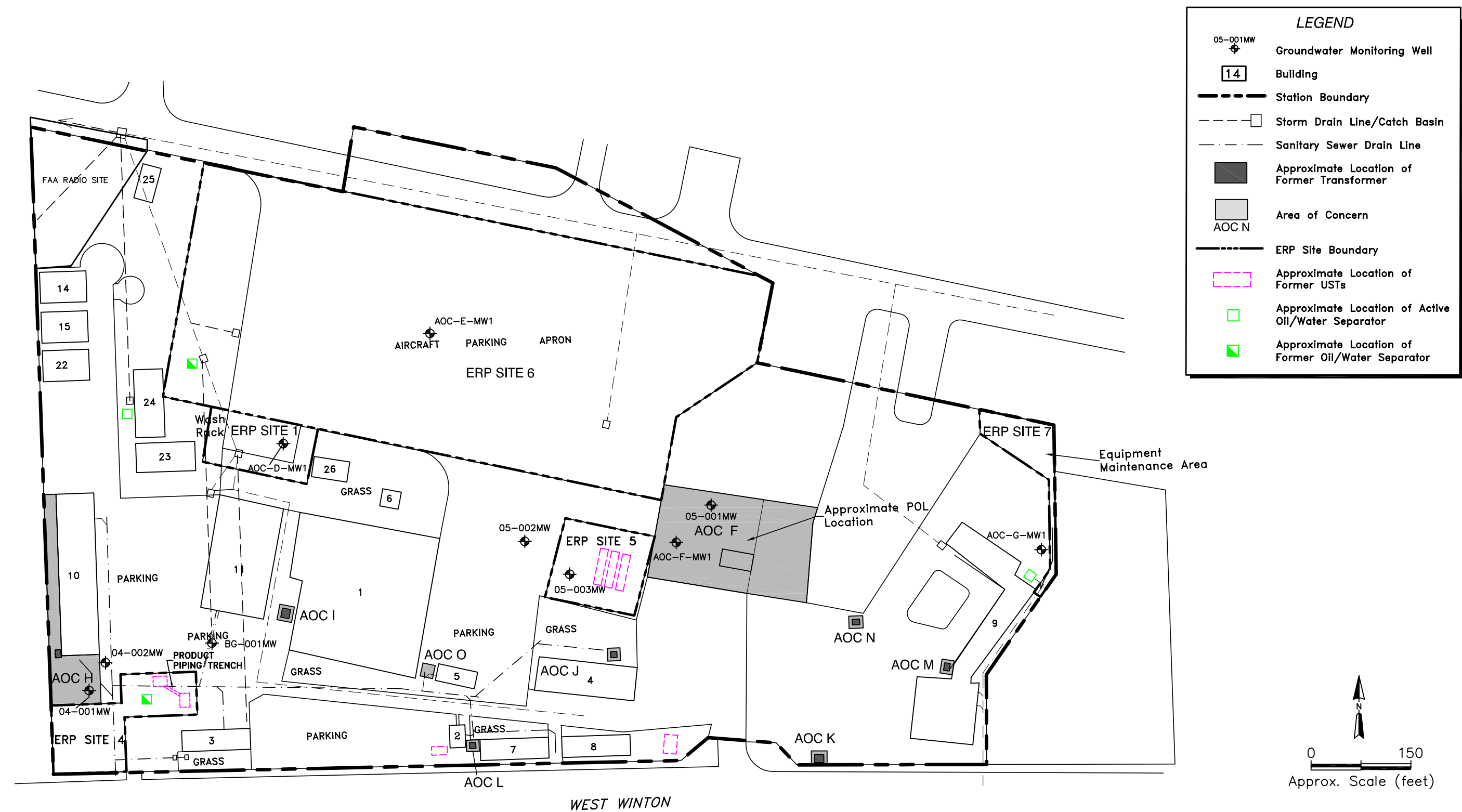
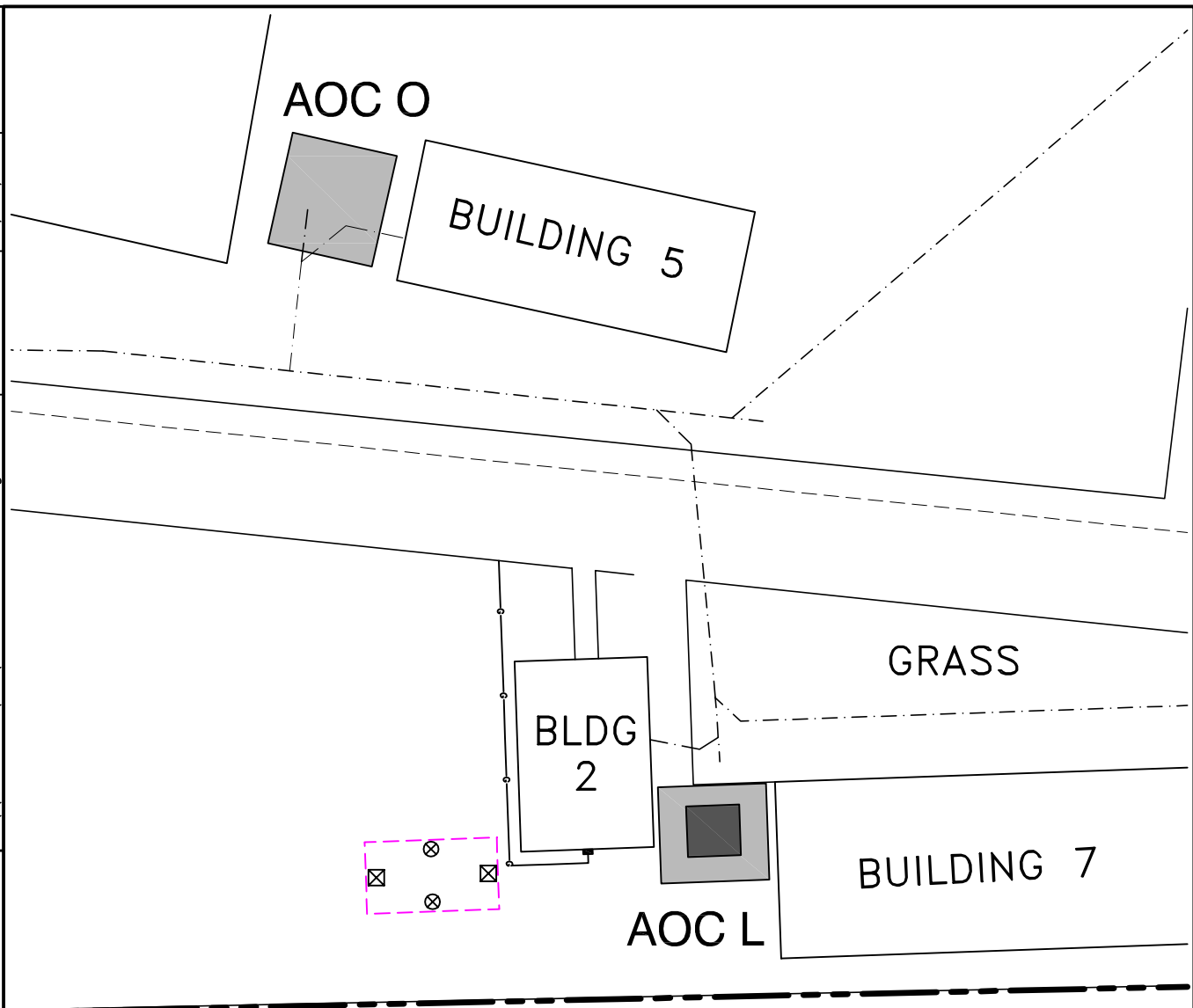


Figure 2
 Site Map
 Hayward ANGWS
 Hayward, California
 ERM 09/04



LEGEND

- ⊗ Proposed Soil Boring Location
- ⊗ Proposed Soil Boring Location with Screening-level Groundwater Sample
- 14 Building
- Station Boundary
- Storm Drain Line/Catch Basin
- Sanitary Sewer Drain Line
- Approximate Location of Former Transformer
- Area of Concern
- AOC N
- ERP Site
- Approximate Location of Former USTs

WEST WINTON AVE

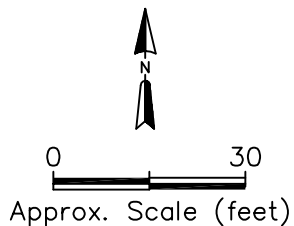
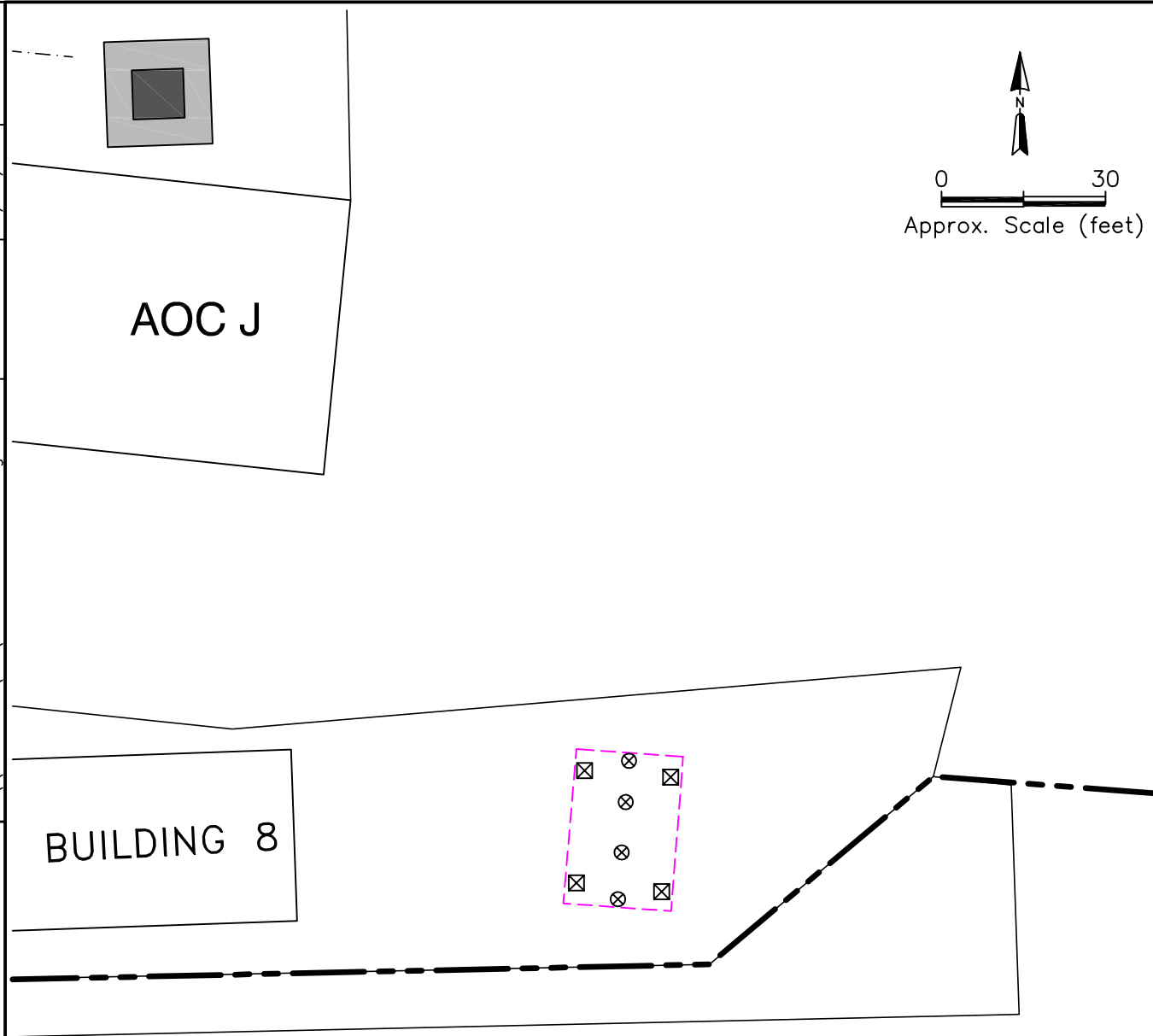
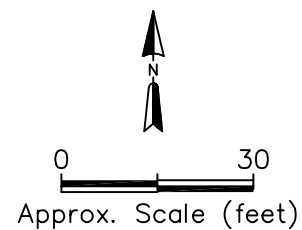


Figure 3
 Proposed Boring Locations, Boiler House
 Hayward Air National Guard
 Hayward, California

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 Drawn By: R. Olson
 Date: 09/10/04
 Project No. 0021762.11



WEST WINTON AVE

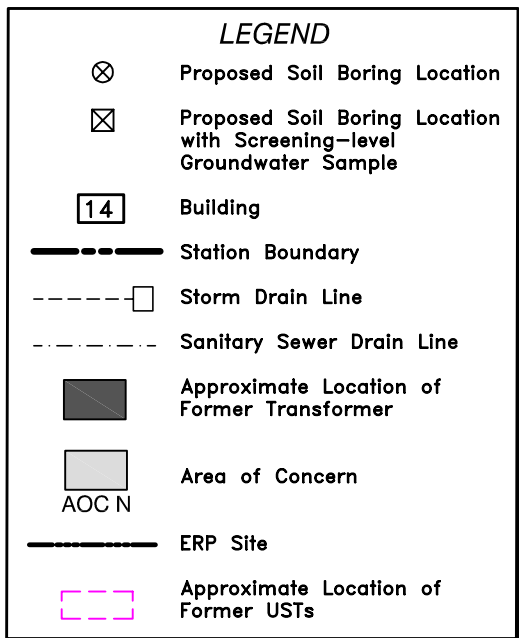


Figure 4
*Proposed Boring Locations, Base Exchange Site
 Hayward Air National Guard
 Hayward, California*

Appendix A
Boiler House UST Closure
Report



AZTECA
CONSTRUCTION, INC.

RECEIVED BY
FIRE PREVENTION OFFICE

MAR 04 1996

HAYWARD FIRE DEPARTMENT

FACSIMILE TRANSMISSION

DATE: 3-4-96

TO: Miles PEREZ FAX #: 510-293-5017

COMPANY: CITY OF HAYWARD

NUMBER OF PAGES 11 + THIS COVER SHEET

SUBJECT: ANALYTICAL REPORT FOR HAYWARD A.M.G.

SENT BY: DALE TOBIASSEN

COMMENTS:

IF THE RESULTS MEET YOUR REQUIREMENT
FOR CLOSURE LET ME KNOW AND A CLOSURE
REPORT WILL BE FILLED OUT AND DELIVERED
TO YOU, WE WOULD LIKE TO BACKFILL
THIS SITE BEFORE RAIN WATER BUILDS
UP AND CREATE A PROBLEM

DALE TOBIASSEN
AZTECA

HARD COPY TO FOLLOW YES ☐ NO ☒

4946 Watt Avenue, #38
North Highlands, CA 95660
(916)334-8661

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Phone #: 916

Company/Address:

FAX #: 351 9270

Project Number:

P.O.#

Project Name:

Project Location:

Sandler Signature:

[illegible]

Relinquished by:

Date Time

Received by:

Relinquished by

Date: Time:

Received by:

Relinquished by

Date Time

Received by Laboratory:

Remarks:

Bill To:

TAT

**RUSH SERVICE (12 hr) or (24 hr)
EXPEDITED SERVICE (48 hr) or (1 wk)
STANDARD SERVICE (2wk)**



Superior Analytical Laboratory

FAX COVER SHEET

Laboratory: (510) 313-0850 Facsimile: (510) 229-0916
835 Arnold Drive Suite 106 Martinez, California 94553

To: Azteca Constuction

Date: 3-1-96

From: Superior Analytical Laboratory

Page 1 of 10

To: DALE TOBIASSEN

From: Afzaneh Salimpour

916 (917)

997-3172

11 A.M. Th.

Azteca Constuction
3871 SECURITY PARK DR
RANCHO CORDOVA, CA 95742

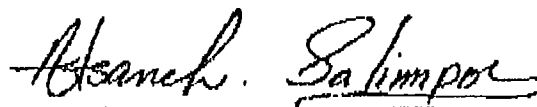
Date: March 1, 1996

Attn: KELLY GEROGORY

Laboratory Number : 20966

Project Number/Name : 95146
Facility/Site : HAYWARD

This report has been reviewed and
approved for release.



Senior Chemist
Account Manager

Azteca Constuction
Attn: KELLY GEROGORY

Project 95146
Reported on March 1, 1996

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Chronology

Laboratory Number 20966

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
114E	02/29/96	02/29/96	02/29/96	02/29/96	CB291.05	01
114W	02/29/96	02/29/96	02/29/96	02/29/96	CB291.05	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CB291.05-02	Laboratory Spike	LS	Soil	02/29/96	02/29/96
CB291.05-04	215AV W-2	MS 20928-01	Soil	02/29/96	02/29/96
CB291.05-05	215AV W-2	MSD 20928-01	Soil	02/29/96	02/29/96
CB291.05-01	Method Blank	MB	Soil	02/29/96	02/29/96

Azteca Construction
 Attn: KELLY GEROGORY

Project 95146
 Reported on March 1, 1996

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 8030/8020

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
20966-01	114E	Soil	1.0	-
20966-02	114W	Soil	1.0	-

RESULTS OF ANALYSIS

Compound	20966-01		20966-02	
	Conc.	RL	Conc.	RL
	mg/kg		mg/kg	
Benzene	ND	0.005	ND	0.005
Toluene	ND	0.005	ND	0.005
Ethyl Benzene	ND	0.005	ND	0.005
Xylenes	ND	0.005	ND	0.005

>> Surrogate Recoveries (%) <<
 Trifluorotoluene (88)

103 100

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 20966
Method Blank(s)

CB292,42-01
Conc. RL
mg/Kg

Diesel:	ND	1
Unknown Hydrocarbons	ND	1

>> Surrogate Recoveries (%) <<

Tetracosane	119
-------------	-----

Total Extractable Petroleum Hydrocarbons

by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 20966

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
----------	-----------------	-----------	------------	---------------	-------------	----------

For Soil Matrix (mg/Kg)

CB292.42 02 / 03 - Laboratory Control Spikes

Diesel:		33	27/28	82/85	50-150	4
>> Surrogate Recoveries (%) <<						
Tetracosane				105/110	50-150	

For Soil Matrix (mg/Kg)

CB292.42 04 / 05 - Sample Spiked: 20962 - 02

Diesel:	190	33	45R/104R	-439/-261	50-150	-51
>> Surrogate Recoveries (%) <<						
Tetracosane				146/165I	50-150	

- [- The surrogate recovery was high due to the presence of interfering compounds in the sample.

{ - MS and/or MSD recoveries were out of control limits. LCS / LCSD recoveries were within acceptable limits.

Definitions:

ID	=	Not Detected	
RL	=	Reporting Limit	
NA	=	Not Analysed	
RPD	=	Relative Percent Difference	
ug/L	=	parts per billion (ppb)	ug/kg = parts per billion (ppb)
mg/L	=	parts per million (ppm)	mg/kg = parts per million (ppm)

Azteca Construction
Attn: KELLY GEROGORY

Project 95146
Reported on March 1, 1996

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Chronology

Laboratory Number 20966

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAE #
114E	02/29/96	02/29/96	03/01/96	03/01/96	CB292.42	01
114W	02/29/96	02/29/96	03/01/96	03/01/96	CB292.42	02

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CB292.42-01	Method Blank	MB	Soil	02/29/96	02/29/96
CB292.42-02	Laboratory Spike	LS	Soil	02/29/96	02/29/96
CB292.42-03	Laboratory Spike Duplicate	LSD	Soil	02/29/96	02/29/96
CB292.42-04	MW-1-5.5	MS 20962-02	Soil	02/29/96	02/29/96
CB292.42-05	MW-1-5.5	MSD 20962-02	Soil	02/29/96	02/29/96

Azteca Constuction
Attn: KELLY GREGORY

Project 95146
Reported on March 1, 1996

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
20966-01	114E	Soil	1.0	-
20966-02	114W	Soil	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	20966-01		20966-02	
	Conc.	RL	Conc.	RL
	mg/kg		mg/kg	

Diesel:	ND	1	ND	1
Unknown Hydrocarbons	5	1		

>> Surrogate Recoveries (%) <<

Tetracosane	90	94
-------------	----	----

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 20966

Method Blank(s)

CB291.05-01

Conc. RL

mg/kg

Benzene	ND	0.005
Toluene	ND	0.005
Ethyl Benzene	ND	0.005
Xylenes	ND	0.005

>> Surrogate Recoveries (%) <<

Trifluorotoluene (88) 105

Volatile Aromatic Hydrocarbons by EPA SW-846 Method 5030/8020

Quality Assurance and Control Data

Laboratory Number: 20966

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
----------	-----------------	-----------	------------	---------------	-------------	----------

For Soil Matrix (mg/kg)

CB291.05 02 / - Laboratory Control Spikes

Benzene		0.200	0.21	105	65-125	
Toluene		0.200	0.21	105	65-125	
Ethyl Benzene		0.200	0.20	100	65-125	
Xylenes		0.600	0.62	103	65-125	

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)				98	50-150	
-----------------------	--	--	--	----	--------	--

For Soil Matrix (mg/kg)

CB291.05 04 / 05 - Sample Spiked; 20928 - 01

Benzene	ND	0.200	0.21/0.22	105/110	65-125	5
Toluene	ND	0.200	0.21/0.22	105/110	65-125	5
Ethyl Benzene	ND	0.200	0.20/0.21	100/105	65-125	5
Xylenes	ND	0.600	0.63/0.66	105/110	65-125	5

>> Surrogate Recoveries (%) <<

Trifluorotoluene (SS)				95/97	50-150	
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Definitions:

ND = Not Detected

RL = Reporting Limit

NA = Not Analysed

RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)



AZTECA
CONSTRUCTION, INC.

RECEIVED BY
FIRE PREVENTION OFFICE

JUL 29 1996

HAYWARD FIRE DEPARTMENT

July 24, 1996

SENT VIA CERTIFIED MAIL

Mr. Gerald Browne, Deputy Fire Chief
City of Hayward
FIRE DEPARTMENT
25151 Clawiter Road
Hayward, CA 94545-2731

RE: NOTICE OF NONCOMPLIANCE NO. 96-7173

Dear Mr. Browne:

In reference to your Notice of Noncompliance No. 96-7173, enclosed please find the Report of Site Closure dated March 19, 1996 for the Air National Guard facility located at 1525 West Winton Avenue in Hayward, CA.

If you have any questions regarding this matter, please do not hesitate to contact me or Dale Tobiassen at the number below.

Sincerely,

Pam Andersen
Contract Administrator

PA/pf

Enclosure

f:\jobs\95146\01browne.ltr



March 19, 1996

AZTECA
CONSTRUCTION, INC.

DEPARTMENTS OF THE ARMY AND AIR FORCE
NATIONAL GUARD BUREAU
U.S. Property and Fiscal Officer for California
P.O. Box 8104
San Luis Obispo, CA 93403-8104

**RE: CONTRACT NO. DAHA04-95-C-0031, REMOVE UNDERGROUND
FUEL STORAGE TANKS, NORTH HIGHLANDS AND HAYWARD AIR
NATIONAL GUARD STATIONS, CA**

SUBJECT: SITE CLOSURE

**TABLE #3
SECTION II CLOSURES**

SITE HISTORY

- 1.) Q. Describe the size, age, condition, use, and type of tank removed, and submit a map showing the former tank system and existing buildings on site.

A. 10,000 gallon tank. The age of the tank is unknown. The condition is good. The type is a single wall steel tank. A map showing the former tank system as well as the existing buildings is attached.
- 2.) Q. Submit an evaluation of the inventory records reviewed for the three months prior to removal in order to estimate the quantity of product released.

A. Unavailable.
- 3.) Q. Submit a summary of past site information, such as precision test results, tank repairs or construction activities.

A. No tests were conducted.

95146

PAGE 2

SECTION II - CLOSURES

- 4.) Q. What types of businesses operated at this site previously?
- A. The tank was used to run a boiler in Building #2 for heating the adjoining classrooms.
- 5.) Q. What was the product volume pumped per month for each tank?
- A. No record was kept.
- 6.) Q. Submit a survey of nearby wells.
- A. There are no known nearby wells.
- 7.) Q. List other sources of site specific information checked (e.g. Utility Company, Public Works Department, U.S. and State Geologic Surveys, State and County Health Department, County and Regional Planning, local fire departments, etc.)
- A. On the included map.

SITE CHARACTERISTICS

- 1.) Q. Describe evidence of leakage present (e.g. stained soil, free product, odors, etc.)
- A. No evidence of leakage was detected.
- 2.) Q. Describe visible preferential pathways (sand lens, root holes, etc.) in the excavation pits.
- A. The soils were a dark brown topsoil down to three (3) feet from three (3) feet, down to eleven (11) feet it was a tan clay.
- 3.) Q. Submit site map of surface water bodies (ponds, creeks, stream, etc.) or possible subsurface conduits (sewers, septic tanks, utility lines, etc.) in the vicinity of the site.
- A. Shown on the included map.

PAGE 3

SECTION II - CLOSURES

SAMPLING AND ANALYSIS

- 1.) Q. Were additional samples (other than the minimum required) taken where obviously contaminated soil was present?
A. There was no obviously contaminated soil.
- 2.) Q. Did sampling and analytical protocols conform to standards described in LUFT and this document?
A. Yes.
- 3.) Q. Were the appropriate laboratory analysis used (see Table 2)?
A. Yes.
- 4.) Q. Were the laboratory analysis and QA/QC results submitted?
A. Yes.
- 5.) Q. In cases of high water table, a) were samples taken from the sidewalls and b) was water present in the excavation pit?
A. No water was encountered.
- 6.) Q. Were soil samples taken for every 20 lineal feet of underground piping?
A. No piping was present.
- 7.) Q. Were depth and location of soil samples submitted?
A. Yes, included on the enclosed map.

Should you have any questions regarding this matter, please do not hesitate to contact me at number listed on the letterhead.

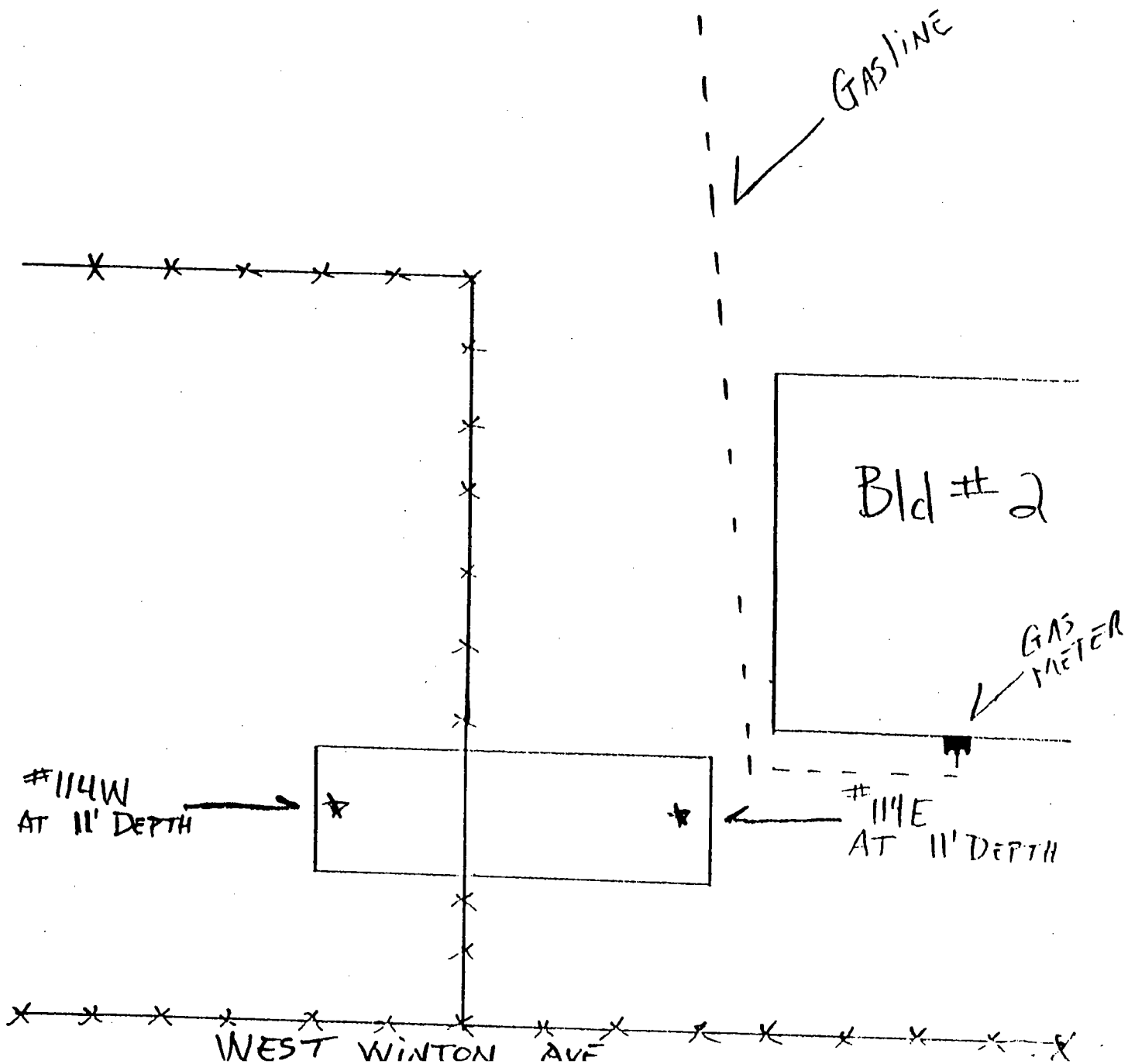
Sincerely,



Dale Toblassen
Project Manager

CC: MILES, J. PEREZ, R.E.H.S.
HAYWARD FIRE DEPARTMENT

BY AZTECA CONST.	DATE 3/19/96	PROJECT DAHA04-95-C-0031 - REMOVE UNDERGROUND FUEL STORAGE TANKS, NORTH HIGHLANDS	SHEET 4 of 4
CHKD BY	DATE	FEATURE AND HAYWARD AIR NAT'L GUARD STATIONS, CA	
DETAILS			





AZTECA

CONSTRUCTION, INC.

3871 Security Park Drive
Rancho Cordova, CA 95742-6920
CLN 397742

Fold at line over top of envelope to the
right of the return address

CERTIFIED

Z 046 259 957

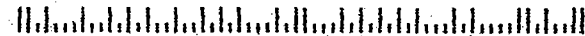
MAIL

MR. GERALD BROWNE, DEPUTY FIRE CHIEF
CITY OF HAYWARD
FIRE DEPARTMENT
25151 CLAWITER ROAD
HAYWARD, CA 94545-2731

RECEIVED BY
FIRE PREVENTION OFFICE

JUL 29 1996

HAYWARD FIRE DEPARTMENT



Appendix B
City of Hayward Correspondence
Regarding Boiler House UST



Fire Department



March 5, 1996

Mr. Dale Tobiassen
Azteca Construction, Inc.
3871 Security Park Drive
Rancho Cordova, CA 95146

RE: TANK CLOSURE REPORT - CAL AIR NATIONAL GUARD (HAYWARD)

Dear Mr. Tobiassen:

On February 29, 1996, your company removed one (1) underground 10,000-gallon diesel tank from the Cal Air National Guard's Hayward Station, located at 1525 Winton Avenue in Hayward. Two (2) soil samples were taken from the excavation below each end of the tank for BTEX and TPH-diesel analysis by Excelchem Environmental Labs.

This letter is to acknowledge receipt of the analytical report for the soil samples, forwarded by facsimile on 4 March 1996. Both samples demonstrated non-detectable levels for all hazardous constituents of concern, and it appears that the site does not require further investigation at this time. As I stated to you during our telephone conversation of 5 March 1996, you may proceed to backfill using the original excavation soils. Please be aware that further work could be required if conditions change or if a threat to water quality is discovered at the site.

We appreciate your quick response in providing results of the soil testing to this department and look forward to receipt of the final closure report. Should you have any questions regarding this matter, please contact me at (510) 293-5450.

Sincerely,

A handwritten signature in cursive script that reads "Miles J. Perez".

Miles J. Perez, R.E.H.S.
Hazardous Materials Investigator

MJP/mjp
perez\1\letters\dt030596.1



Fire Department



August 13, 1996

Mr. Guy Flemming
CA Air National Guard
3900 Roseville Road
North Highland, CA 95660-5794

**RE: UNDERGROUND STORAGE TANK REMOVAL AT THE AIR NATIONAL GUARD
FACILITY AT 1525 WEST WINTON AVENUE, HAYWARD**

Dear Mr. Flemming:

On February 29, 1996, Azteca Construction provided services for the removal of one (1) underground 10,000-gallon diesel tank from the Cal Air National Guard's Hayward Station at the above-referenced address. An analytical report for soil samples taken were forwarded by facsimile on March 4, 1996. The report indicated non-detectable levels for volatile aromatic hydrocarbons and total extractable petroleum hydrocarbons. The analytical report was followed by the *Report of Site Closure*, dated March 19, 1996, and received by this department on July 29, 1996.

This letter is to inform you that the analytical report and the closure report indicate that no further action is required for this tank removal at this time. Should you have any questions regarding this matter, you may contact me at (510) 293-5450.

Sincerely,

A handwritten signature in cursive script that reads "Miles J. Perez".

Miles J. Perez, R.E.H.S.
Hazardous Materials Investigator

MJP/mjp
user.pm6330.letters\gf081396.tnk

cc: Dale Tobiassen, Azteca Construction
Peggy Baker, Public Works
Hugh Murphy, HFD



Appendix C
Volatile Organic Compounds
USEPA Method 8260B

Table C-1
Volatile Organic Compounds
USEPA Method 8260B
Site Assessment/Corrective Action Plan
Hayward Air National Guard Station
Hayward, California

Compound	Compound
1,1,1,2-Tetrachloroethane	Chloroethane
1,1,1-Trichloroethane	Chloroform
1,1,2,2-Tetrachloroethane	Chloromethane
1,1,2-Trichloroethane	cis-1,2-Dichloroethene
1,1-Dichloroethane	Dibromochloromethane
1,1-Dichloroethene	Dibromomethane
1,1-Dichloropropene	Dichlorodifluoromethane
1,2,3-Trichlorobenzene	Diisopropyl ether
1,2,3-Trichloropropane	Ethyl tert-butyl ether
1,2,4-Trichlorobenzene	Ethylbenzene
1,2,4-Trimethylbenzene	Hexachlorobutadiene
1,2-Dibromo-3-chloropropane	Isopropylbenzene
1,2-Dibromoethane (EDB)	Methyl tert-Butyl Ether
1,2-Dichlorobenzene	Methylene chloride
1,2-Dichloroethane	Naphthalene
1,2-Dichloropropane	n-Butylbenzene
1,3,5-Trimethylbenzene	n-Propylbenzene
1,3-Dichlorobenzene	p-Isopropyltoluene
1,3-Dichloropropane	sec-Butylbenzene
1,4-Dichlorobenzene	Styrene
2,2-Dichloropropane	tert-Amyl methyl ether
2-Chlorotoluene	tert-Butyl alcohol
4-Chlorotoluene	tert-Butylbenzene
Benzene	Tetrachloroethene
Bromobenzene	Toluene
Bromochloromethane	trans-1,2-Dichloroethene
Bromodichloromethane	Trichloroethene
Bromoform	Trichlorofluoromethane
Bromomethane	Vinyl Chloride
Carbon Tetrachloride	Xylenes (total)
Chlorobenzene	

Notes:

All compounds analyzed by USEPA Method 8260B